



IN THE UNITED STATES PATENT OFFICE

In re the Application of:)
Lister, Gary)
Appln. No.: 10/019,435) Examiner: Tom P Duong
Filed: December 31, 2001) Art Unit: 3711
102) Atty. Docket: 2389 -
TITLE: PUTTING ALIGNMENT SYSTEM)
)

The Honorable Commissioner of
Patents and Trademarks
Washington, D.C.
U.S.A. 20231

Dear Sir/Madam:

DECLARATION BY INVENTOR

I, Gary Lister, enclose herewith in support of this,
my application, true copies of the following documents:

Exhibit A: Excerpts from "Dave Pelz's Putting Bible"
(June 2000), pages 66-67, 240-241, 264-265, 269 and 369;

Exhibit B: "How to Pick a Putter", Golf Magazine, May
1995, pages 100-101; and

Exhibit C: "The First Fundamental of Putting", Golf
Magazine, June 1995, pages 146-147.

Exhibits A-C demonstrate the importance of aligning
the golfer's eyes over the golf ball when putting, and
various methods and aids to help golfers to achieve such
alignment.

BEST AVAILABLE COPY

I submit that the Exhibits A-C show that there has been a long-felt but unsolved need for a means to aid golfers to achieve proper positioning of their eyes over the ball. Furthermore, I submit that Exhibits A-C show the failure of others, namely Pelz, to come up with the present invention.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Dated: April 13/05

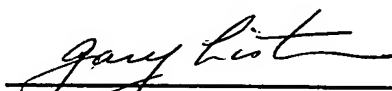
By: 
Gary Lister
Inventor

EXHIBIT A TO THE DECLARATION OF
GARY LISTER DATED APRIL 13, 2005

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ISBN 0-385-50024-6

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First Edition

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66 The Seven Building Blocks of Stroke Mechanics

Aimline, then he is sure to misalign his putter (and likely miss the putt), because now his view has changed to alignment angle B. The mind can't keep everything properly aimed if it has to deal with constantly changing views of alignment.

Any golfer whose eyes are not consistently vertically above his Aimline will have to change his view of alignment due to the changing angles he sees for putts of different lengths. The result is inconsistent alignment. The only way to align the putterface properly time after time is by positioning both eyes exactly vertically above the Aimline so the alignment angle is always zero degrees for all putts, regardless of length (Figure 4.4.3 C and D).

Detailed procedures for learning how to aim properly will be discussed in section 12.6, where I'll show you how to improve and even perfect your ability to aim. But for now, realize that aim is an essential fundamental of putting, a learned skill you have probably learned incorrectly (without knowing it) based on the results of past putting strokes and the positioning of your eyes (which you should keep vertically above the Aimline, Figure 4.4.4).

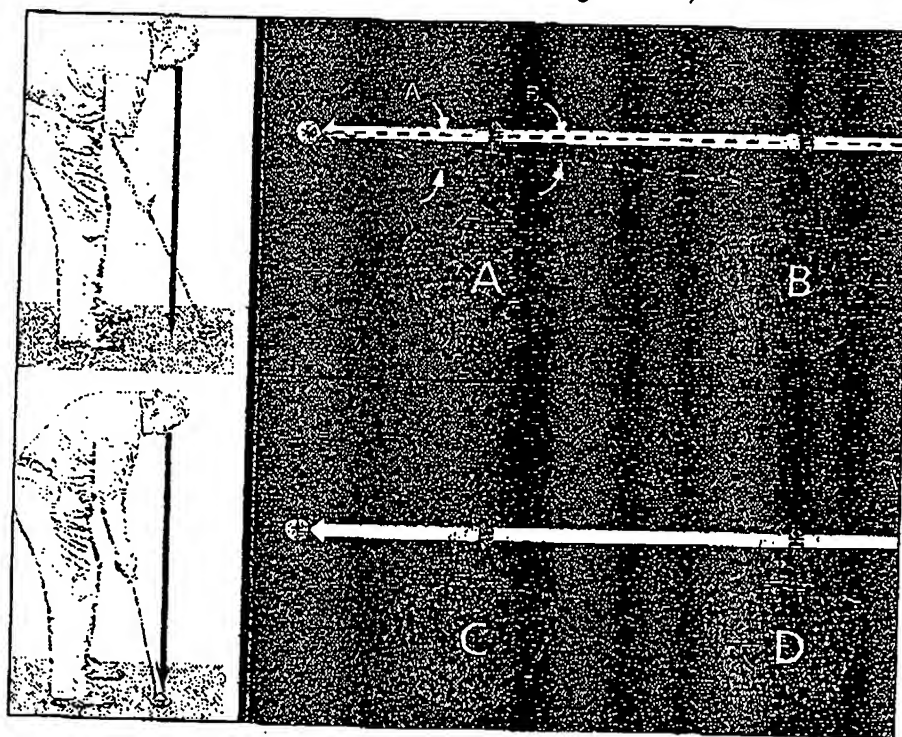


Figure 4.4.3: Eyes positioned inside Aimline (A and B) create different alignment angles for different-length putts. Eyes positioned over Aimline (C and D) create alignment angle of zero for all length putts.

DAVE PELZ PUTTING BIBLE

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Figure 4.4.4: With eyes vertically above Aimline, there is no alignment angle to compensate for.

If you don't learn to aim correctly, then no one (myself and my Scoring Game Schools included) will ever be able to teach you a good putting stroke. A good putting stroke with bad aim will miss every time, and your subconscious will never let you learn a stroke that it knows will miss every time. Instead, you'll begin compensating. However, once you learn to aim accurately along the Aimline you choose, your putting instincts will lead you to make better, less compensating strokes, and that leads to holing more putts.

4.5 Power Source

Your power source is the part of your body that supplies the power to control and move the putter through the impact zone of your stroke. The muscles you use to control your putter determine your putting power source. The three most common power sources used in putting are: (1) the small muscles of the fingers, hands, wrists, and forearms; (2) the arms and shoulders; and (3) body motion.

Fingers, Hands, and Wrists

Most golfers control their putting with the small muscles of their hands, wrists, and forearms. These are the muscles that control most of the things we do in life—hitting things, twisting things, moving things—so using our hands and forearms in golf is instinctive and, therefore, feels natural to us. But instinct and natu-

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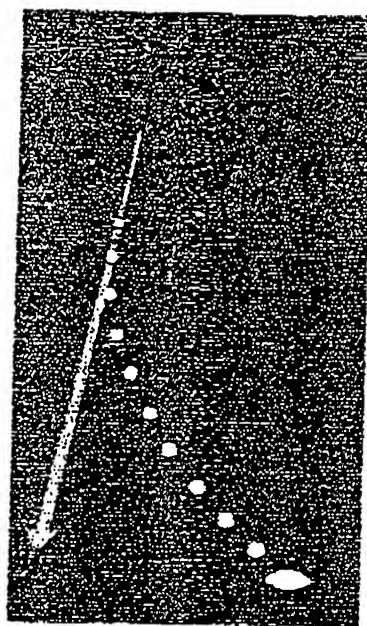


Figure 11.5.12: Choose your Aimline and commit to it. Use your preputt routine to orient your mind and body to it. Then settling up with the flow-lines parallel to your Aimline becomes automatic, even on breaking putts.

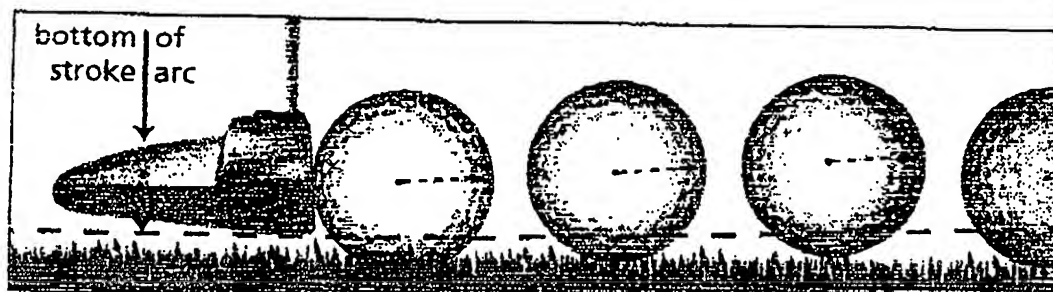


Figure 11.5.13: Launch putts slightly upward (out of footprints), but not enough to bounce.

and a half (almost the diameter of one ball) behind the instep of the lead foot (Figure 11.5.14), and—this is important (as you'll see in section 11.7 below)—vertically under your eye flow-line. An easy way to see and measure this position is to practice with a small mirror on a flat floor (it helps to place a thin piece of colored tape down the middle of the mirror to represent the Aimline). Once you see that your stance is perfect relative to the Aimline, and that your eyes are vertical above the Aimline, measure the distance between your toe line and the inside edge of the ball. This distance, as shown in Figure 11.5.15, is usually about the length

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Figure 11.5.14: When the stroke arc bottom is near stance center, optimum ball position is about one ball inside lead foot instep.

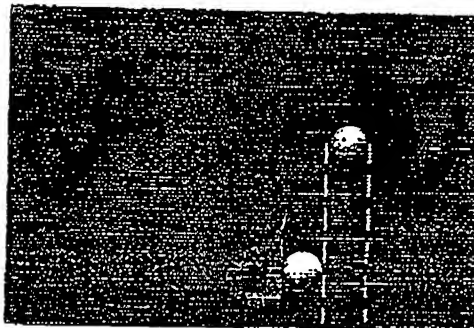


Figure 11.5.15: With eye flow-line vertically above Aimline (left), the toe line will be one to two putter-lengths (right) from the ball (different for different golfers).

two putterheads, and should stay the same for all your putts on level (or nearly level) putting surfaces. When putts are significantly above your feet, you can stand slightly farther from the ball (but never more than an inch and a half, one extra ball diameter), and for balls below your feet, a little closer.

11.6 Fit Your Putter

A properly fit putter is important, but it's not the top priority in helping you putt better. It may not even be in the top 5 or 10 (it's hard to tell without seeing and measuring your putting game in person). A well-fit putter is nice, it feels good,

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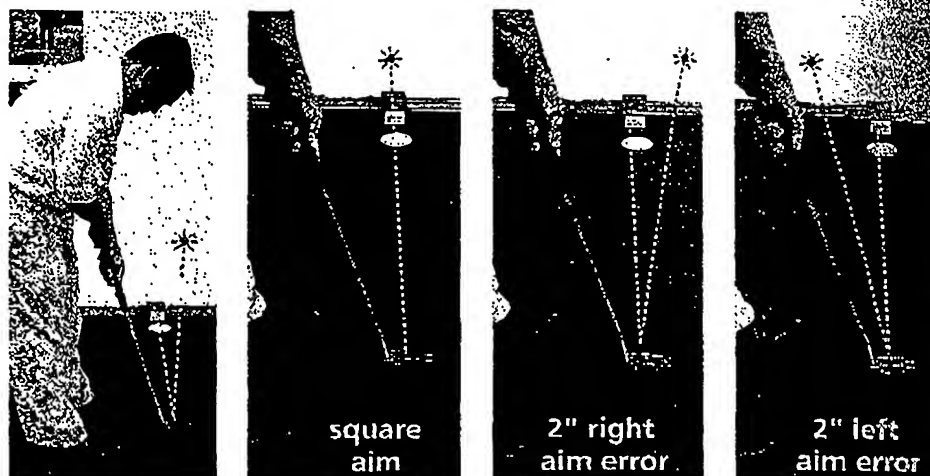


Figure 11.7.1: LazrAimer (the box sitting on the floor against the wall) bounces a laser beam off the putter to teach direction of putterface aim error.

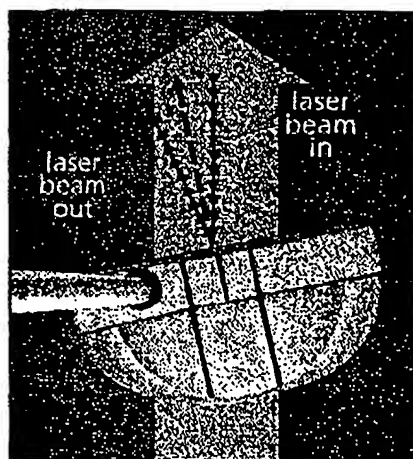


Figure 11.7.2: Laser beam reflects from the putterface mirror back to the wall, showing aim errors.

bounces off the putterface back to the wall, and shows any error in alignment.

Golfers who practice with this device dramatically improve their ability to aim, seeing results in as little as five minutes. However, by the next day, most of that improvement has disappeared. Our experience shows that it takes about three weeks for improvement to make it to the golf course. Even years after learning to aim properly, some Tour professionals work with their LazrAimers in their hotel rooms to keep their aim "spot-on."

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Aim in the Putting Track

The Putting Track (Figure 11.7.3) is the poor man's LazrAimer. It can be very effective improving a golfer's ability to aim, but it takes much more time, as long as six months.

Every practice session must start with careful alignment of the Putting Track, aiming it precisely at a target that simulates the hole. With something heavy in place to prevent the target from being hit (and moved) by the putted ball, you set up parallel-left, execute your preview stroke, then step in, set up to the putt, and align your putterhead with the square-alignment lines on the track as you look at the target. Looking from your square putterface to the target gives you an accurate vision of proper aim, and over time is what teaches you proper alignment recognition. The track is neither as accurate nor as efficient as the LazrAimer at teaching alignment, but it does work over the long haul and is definitely worth a try.

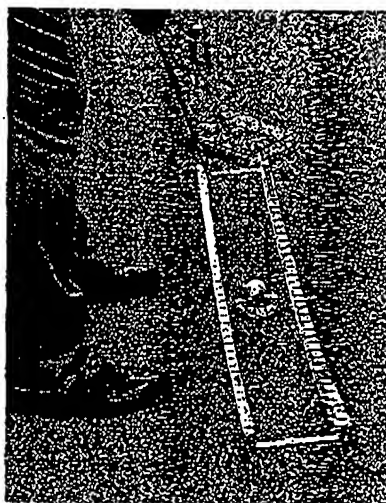


Figure 11.7.3: The Putting Track provides feedback on stroke path (side rails), eye position (mirror on crossbar), and putterface alignment (stripes on rails and soda can as target).

Aim the Balance-Line

Many golfers improve their alignment by first aiming a line (or the printed words that form a line) on the golf ball in the direction that they want the putt to start (their Aimline). With the line properly aimed, they set the head of the putter perpendicular to that line as they address their putts. This isn't a new idea, but Tiger Woods (Figure 11.7.4) and Justin Leonard have been seen doing it on television so frequently that it recently has become more popular. We ran a test of amateurs of all handicaps and found that a one-sixteenth-of-an-inch-wide line (preferably in red), at least one inch long, seemed to help golfers the most.

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Don't Forget about Your Eye Position

Finally, whenever you work on your aim/alignment, don't forget about keeping your eyes vertically over the Aimline. No matter how well you learn to aim on the LaserAimer or with your Balance and Face-lines, if you position your eyes differently for every putt, you have no chance of developing consistent alignment. Once again, don't misinterpret what I mean by "eyes above the Aimline": This does not mean exactly over the ball; one or both eyes can be behind the ball as long as they are both still vertically above the Aimline.

In the old days, to check your eye position, you could either drop a ball from beneath your eye line or have a friend stand behind you and say when a plumb line hanging from a point vertically below your eyes (usually about the tip of your nose—Figure 11.7.8) touched the Aimline. Now, however, since you know how to ensure your eye line is positioned vertically above your Aimline by measuring your toe-line-to-ball distance (see section 11.5), periodically check that distance during all your subsequent practice sessions. And remember, if you don't address the ball the same way every time, and use the same putter from the same posture every time, your subconscious can't learn to repeat, let alone submit to subconscious control, the habits of good putting.

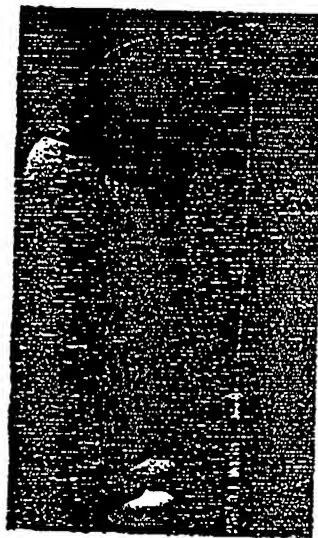


Figure 11.7.8: Consistent alignment, no matter how you learn it, can only be maintained if you set up with your eyes vertically above your Aimline.

Wrap-Up 369

- iii. Timing the impact of a curving and rotating putterface becomes critical (the early or late, but never on-time, syndrome)
- 3. Face rotation is a disadvantage in putting. The pils stroke beats the screen-door stroke in every department: simplicity, repeatability, reliability, being in-line, and being square.
- 4. An address setup position with parallel flow-lines makes in-line putting down your Airline easy and absolutely natural (Figure 15.2.3).



Figure 15.2.3: When your body flow-lines are all aligned parallel to your Airline your putter will naturally flow in a pure-in-line-square stroke motion—if you don't do something to screw it up.

- 5. A pendulum motion requires short swings for short putts, long swings for long putts. By using a pendulum motion with no "hit" power, the adrenaline effects from hand and wrist muscles are eliminated.
- 6. By moving everything together, the triangle and putter make a pure pendulum motion.
- 7. Shorter backswings and slightly longer follow-throughs keep pendulum strokes stable through impact.

One of the nice things about looking at putting from a scientific point of view (which is what I spend much of my time doing) is that the more you study and understand it, the simpler it seems to be.

The Art of Putting

The mental side of putting is a set of simple processes (but so many of them that

EXHIBIT B TO THE DECLARATION OF
GARY LISTER DATED APRIL 13, 2005

The Golf Course 3d Hole

Dave Pelz

How to Pick a Putter

Use science, not speculation, to select the most important club in your bag

I'm not a famous sports star who, for a fat fee, will tell you why this razor, shampoo, or automobile is better than the competition. I went to the University of Indiana on a four-year golf scholarship, trained as a physicist, then spent 15 years in research at the NASA Goddard Space Flight Center. All this proved to be invaluable preparation for my true calling, which for the past 20 years has been the systematic, serious, and sometimes painfully detailed scientific study of golf.

I've designed and manufactured putters, wedges, and full sets of clubs, but left the equipment business nearly 10 years ago. Having proven to myself that the short game is the key to scoring in golf, I

When picking a putter, choose one with the correct lie, the angle that the shaft comes out of the head (top photograph). If the lie doesn't match your posture and physique, you will be forced to make subconscious compensations in alignment and stroke mechanics. The proper

lie puts your eyes directly over the ball and your hands under your shoulders (center photograph). Too upright a lie (left) moves your eyes to the side and your hands too close to your body; too flat a lie (right) puts your eyes to the side and your hands too far away



First Absolute

A putter requires a specific height and stroke.

- 1) The golfer must conform to the posture of the putter. Length of the putter must be in line with the golfer's height and arm length. The putter must be in line with the golfer's eyes and hands.
- 2) The golfer must conform to the posture of the putter. Length of the putter must be in line with the golfer's height and arm length. The putter must be in line with the golfer's eyes and hands.

now concentrate my efforts in that area. I work with a number of PGA and LPGA pros, teach both pros and amateurs at my Dave Pelz Short Game Schools, and conduct research for the golf industry.

I wanted to present my resume upon beginning this new short-game series for GOLF Magazine so you know where I'm coming from. I also wanted to make clear that, although I have had club-making experience, I have no current allegiances, endorsements, or axes to grind when it comes to buying a putter.

Putting accounts for 43 percent of all shots, which makes the putter the most frequently used club. You need to make an intelligent choice of a putter, which you can do if you rely on science instead of chance or guesswork.

I've listed the considerations in order of importance. Use them as a guide to find a putter that works for you. Although evaluating a putter properly will take time and a little trouble, you'll find the effort well spent. Because when you hole more putts, the game becomes more fun.

First Three: Absolute Necessities

A putter must satisfy three fitting requirements, unique to each golfer's height, size, body structure, putting stroke, and visual alignment skills.

1) The length and shaft angle (lie) must complement your physique and posture in the following ways.

◦Length: Long enough to allow practice without back pain.

◦Length: Short enough to avoid getting hung up in rain gear and other clothing.

◦Length and lie: You must be able to position your eyes directly over the putting line and your hands directly under your shoulders.

2) The putter balance (sweetspot location and position of shaft attachment) must compensate for your

impact errors by minimizing clubhead twisting. (Measure your impact pattern by stroking 30 putts with pressure-sensitive tape, available at many golf shops, on the putterface.)

◦If you mishit toward the toe, use a center-shafted putter.

◦If you mishit toward the heel, use a heel-shafted putter.

3) The combination of head shape and alignment aids (lines, arrows, etc.) must help you aim the clubface properly. You'll have to test this for yourself, perhaps with one of several laser-beam devices on the market.



A putter's looks are not as important as its effectiveness.

◦If you want to get away with mishitting putts or do you want to develop a better stroke? You decide.)

Second Three: Very Important

1) The weight of the clubhead should be appropriate for your touch. Find the light-

est putter you can: Putt with it as is, then tape a dime on the back or bottom. Add one, two, even three more dimes until you learn which head-weight gives you the best results for touch.

2) Grip size and shape.

◦Size: Small enough to promote control (creating a solid connection between your arms and the shaft).

◦Size: Large enough to keep hands and fingers from interfering and overlapping too much.

◦Shape: Contoured to help situate your hands. You want your hands in the same position every time; grips with flat areas, corners, and edges help you do this (but they must be symmetrical to conform to USGA Rules).

3) Combination of moment of inertia (head-twisting at impact) and balance (weight distribution) should promote the feeling of a



Alignment aids and head shape will help your aim.

smooth swing and stroke. This usually means you must decide between a putter with a lot of feel, but little forgiveness on off-center hits, and a more forgiving putter that, because of heel-toe weighting, provide less feel. (Do

you want to get away with mishitting putts or do you want to develop a better stroke? You decide.)

Final Three: Personal Preferences

1) A putter that always returns to the same position when soled allows easy, repeatable gripping and setup without affecting aim.

2) A golfer should like the appearance of a putter. But don't react to looks too quickly; we've all used putters that start out ugly and become beautiful after making a bunch of putts.

3) Feel and sound at impact should be solid to promote confidence. This isn't too important, but it's always nice.

Three to Forget: Totally Irrelevant

Do not buy a putter based on the following.

1) Price: There is no such thing as a bargain on a putter that doesn't fit or help you make the most of your stroke. Nor is a putter better simply because it has a high price tag.

2) Use on pro Tours: I know the equipment companies advertise their Tour successes, but the pros putt well because their putters satisfy the requirements previously mentioned, and they've learned to hit the ball on the sweetspot.

3) Opinions and recommendations of friends and other golfers based on their experiences:

Make a choice based on your own tests and experiences.

—with James A. Frank



It's not a bargain if it doesn't help your game.

the ball and
ors (center)
ur eyes out
close to your
our eyes in
far away.

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EXHIBIT C TO THE DECLARATION OF
GARY LISTER DATED APRIL 13, 2005

The Golf Course 7th Hole

Dave Pelz

The First Fundamental of Putting

...is alignment. Do it wrong and almost no amount of compensation will do you right

I teach six putting fundamentals in my short-game schools: aim, stroke path, face angle, impact point, touch, and green-reading. Each is important, and you won't putt well if you are weak in any one. But because you aim your putter first, it must be addressed first. If you can't aim, the other fundamentals have to compensate.

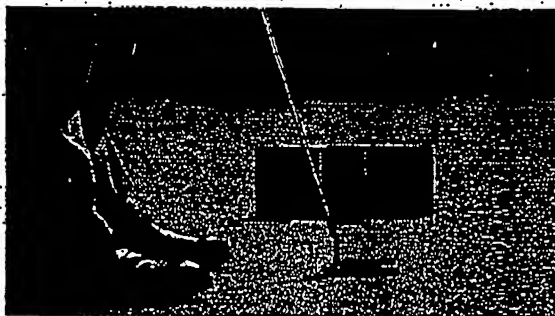
A number of studies bear this out. A test run by the University of the Pacific found that golfers develop compensations based on their aim. Players who regularly push putts because their aim is poor "learn" to start them to the left; pullers learn to start them right. Further testing proved that golfers with a push stroke subconsciously aim to the left, while those with a pull stroke aim right.

So poor aim begets poor stroke mechanics and vice versa. Which comes first? I think poor strokes cause more bad aiming than the other way around, but it doesn't matter. The two are linked and ingrained in a golfer usually well before he knows to do anything about them. That's why I'm not surprised when I see poor putting characteristics even in very experienced golfers.

Before correcting alignment, a few facts.

Fact No. 1. What you see when aiming is affected by eye position. Eyes inside or outside the line see every different-length putt from a different angle (see drawing A, facing page). From farther away, the angle is smaller than if you are close to the hole. As a result, you subconsciously vary aim and stroke when the angle changes.

To avoid this changing angle phenomenon, your eyes must be directly over the target line (drawing B). This



Devices like this one, which features a laser-light beam, help you learn to align your putter straight at your target.

position doesn't guarantee perfect aim, but it does assure consistent aim—the same visual angle every time.

To check that your eyes are over the line, set up for a putt and drop a ball from the bridge of your nose. It should either hit the ball on the ground or just behind it on the target line.

Fact No. 2. Humans interpret visual input according to their wants and preferences.

Said another way, there's more to "seeing" than meets the eye.

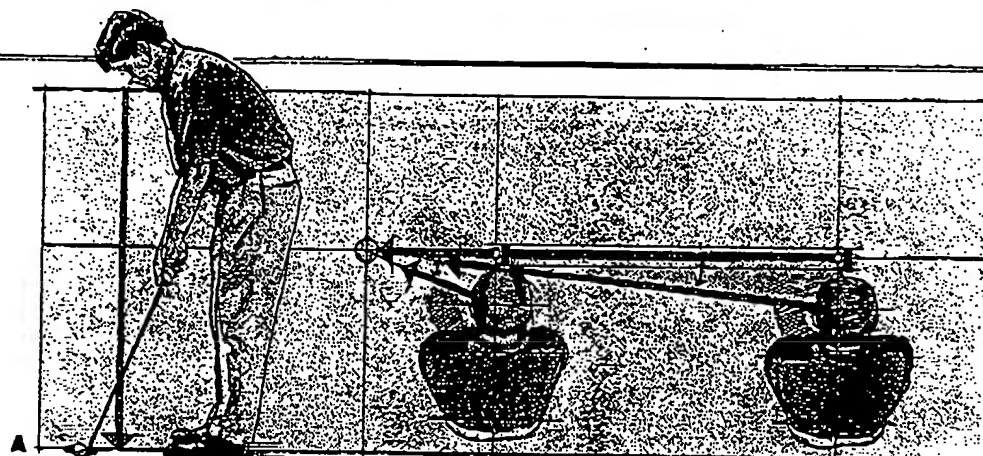
Have you ever looked in a drawer for something, found it, then your spouse opens the same drawer and spots it immediately? The object was there, the light from the object entered your eyes, but your mind didn't let you see it.

What does this have to do with putting? It means you can miss seeing the correct aim even when it's right. Your aim experience is based largely on your putting results, which probably combine both your bad mechanics and bad aim, so you have no idea what proper alignment looks like.

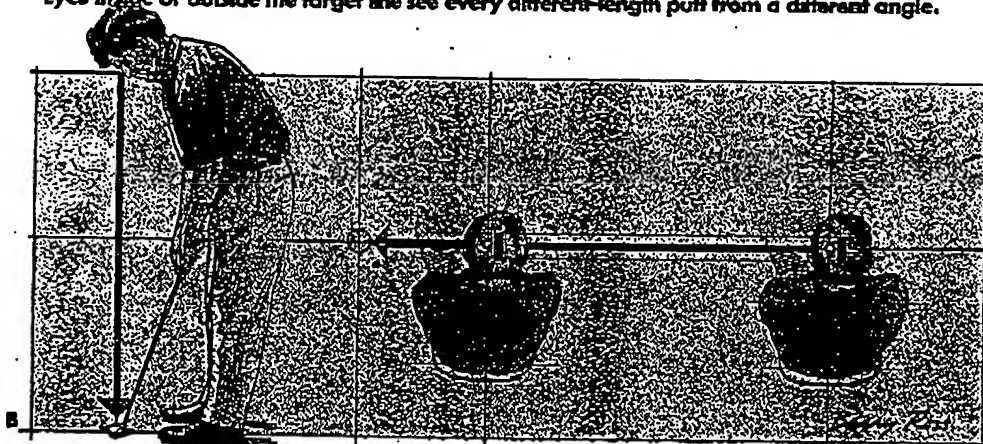
You can learn to recognize proper alignment, but not simply by practicing your stroke on a putting green. You must receive aim feedback independent of how your putts roll.

There are a number of devices to help. GOLF Magazine recently has rated a few laser-light alignment aids that indicate if the putter is aimed dead-on. These aren't cheap, but they are quite accurate and I recommend them.

A number of companies make putting tracks that form



A Eyes inside or outside the target line see every different-length putt from a different angle.



B Eyes positioned over the target line view all putts, of all lengths, from the same perspective.

you to set up to a target, then give you practice in both proper path and face angle. These are less expensive, but require careful setup and take more time to learn from because they do much of the work for you rather than making you do it yourself.

You even can learn to aim better by working with strings or other lines that show you when the putter is properly aimed. Inexpensive, but again, they tend to aim for you.

The simplest thing you can do to work on proper aim is buy a putter with alignment aids (lines, arrows, etc.) or a squared-off head shape you like. Have a friend stand behind you and indicate when you are perfectly aimed. (While a new putter isn't too expensive, you probably can't get a friend to help you often enough, unless you make a deal to help him in return.)

Once the laser beeps or your friend says okay, look at the putter

and tell yourself, "That is what proper alignment looks like." Notice how the putterhead looks in relation to your feet and the ball. Where are the lines and other markings pointing? (You may be surprised.) How does it feel in your hands?

Once you know what proper aim looks and feels like, and you are sure your eyes are directly over the line, begin practicing your stroke. You'll probably miss most putts at first because you are still making the push or pull motion (it's fixed in your mind) that used to be required

to compensate for your poor aim.

As long as you can keep practicing with good feedback on your setup and alignment, keep telling yourself that your aim is true, and keep working on it. Your stroke will come around. And remember, it's a lot easier to be consistent with a straight stroke than it is to use a different compensation with each new putt. The better you aim, the more putts you will make! ■

Even the Pros Are Talking About It!

Tour pros are calling Dave Pelz to ask if his "Amazing Truth About Putting," as reported in the April '95 issue of GOLF Magazine, really works. It does. See for yourself by ordering the exclusive video. It costs \$19.95 plus \$3 shipping/handling.

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